

SOFT POLYMERIC COMPOUNDS INCLUDING METAL OXIDE FILLERS

ABSTRACT

The present invention is a thermoreversible polymeric gel composition including a polymer having at least one maleimide monomer unit and at least one other monomer unit selected from a vinyl-substituted aromatic hydrocarbon, a R^1R^2 ethylene, and/or an alkyl vinyl ether; a metal oxide filler; a maleated polyalkylene; and an extender. The metal oxide filler improves the tensile strength, tear strength, damping properties, high-temperature compression set, and electric sensitivity of the copolymers. The Shore A hardness of the present polymer gel compositions at room temperature is preferably less than about 30. The present polymer gel compositions preferably has a service temperature up to about 145 °C.